PRIMARY USE: Control of erosion on disturbed areas.
ADDITIONAL USES: Increase soil moisture, increase infiltration, promote germination of plants.

MULCHING, NETTING, AND MATTING

What is it? Mulching includes the application of a protective blanket of straw or other plant residue, gravel, or synthetic material to the surface of the soil. Netting includes lightweight plastic, cotton, jute, wire, or paper products which leave much of the underlying surface exposed. It is mainly used to hold mulch in place. Mats are organic, synthetic, or combination materials which blanket the surface and perform the roles of both mulch and net.

Purpose

Mulching and matting protect the soil surface from the forces of raindrop impact and overland flow. Mulch and mats foster the growth of vegetation, reduce evaporation, insulate the soil, and suppress weed growth.

Mulching, Netting, and Matting
Perspective View

Limitations

Do not use materials which may be sources of competing weed and grass seeds.

Materials

Straw or other plant residue, gravel, or synthetic material.

Installation

Organic mulches have been found to be the most effective. Many organic, synthetic, and synthetic/organic blend matting materials are available. Nets alone provide little moisture conservation. Organic mulch is frequently used with nets. Chemical soil stabilizers and soil binders are less effective when used alone.

Source: NRCS Planning and Design Manual, Washington State Dept. of Transportation, An Introduction to Water Erosion Control, Alberta Agriculture, Food, and Rural Development.

MULCHING, NETTING, AND MATTING

Installation of nets and mats:

1. Apply lime, fertilizer, and seed prior to laying net or mat.
2. Start laying the mat or net from the top of the channel or slope and unroll it down the grade. Allow netting to lay loosely on the soil without wrinkles. Do not stretch.
3. To secure the net, bury the upslope end in a slot or trench at least 6 in (150 mm) deep, cover with soil, and tamp firmly. Staple the net every 12 in (300 mm) across the top end and every 3 ft (0.9 m) around the edges and bottom. Where two strips are laid side by side, the adjacent edges should be overlapped 3 in (75 mm) and stapled together. Each strip of netting should also be stapled down the center every 3 ft (0.9 m). Do not stretch. To join two strips, cut a trench to anchor the end of the new net. Overlap the end of the previous roll 18 in (380 mm) and staple every 12 in (300 mm), just below the anchor slot.
4. Mulching materials and application rates:

Material	Rate Per Acre	Notes
Straw	1 –2 tons	From wheat or oats; spread by hand or machine; should be tacked down.
Wood Chips	5 – 6 tons	Treat with 12 lbs. Nitrogen per ton; apply with mulch blower, chip handler, or by hand; not for fine turf.
Wood Fiber	0.1 – 1 ton	May be hydroseeded; Do not use in hot weather.
Bark	35 cubic yards	Apply with mulch blower, chip handler, or by hand; do not use asphalt tack.
Sericiea	Cover Area	Green or dry; should contain mature seed.
Jute Net	Cover Area	Withstands water flow; best if used with organic mulch.
Fiberglass Net	Cover Area	Withstands water flow; best if used with organic mulch.
Wood Fiber Net	Cover Area	Withstands water flow.
Fiberglass Roving	0.5 – 1 ton	Apply with compressed air ejector. Tack with emulsified asphalt at a rate of 25-35 gals/100 sq. ft.

Source: NRCS Planning and Design Manual, Washington State Dept. of Transportation, An Introduction to Water Erosion Control, Alberta Agriculture, Food, and Rural Development.